License and Application Fee:

The appropriate fee for the Hazardous Waste License is determined using the table below.

HAZARDOUS WASTE GENERATOR FEE SCHEDULE

License Fee			
Total Volume of Hazardous Wastes (Gallons/Year)			
First 500 (or portion thereof)	Next 500 (or portion thereof)	Each Addl. 1000 (or portion thereof)	Initial Application Review Fee
$50	$25	$10	$30

For each additional waste add $20 per license fee and $20 per application fee.

Example: Total Volume - 2,900 gallons; total number of wastes - 4. First 1,000 gallons - $75, next 2,000 gallons - $20; 3 additional wastes - $60. Total license fee - $155. First waste initial application - $30; 3 additional wastes - $60. Total initial application review fee - $90. Total Fee - $245.

Facility: Interplastic Corporation
2015 NE Broadway St.
Minneapolis, MN 55413

November 1, 1980 to October 31, 1981
12 month license
7 month credit

Total Volume: 20,000 gals.	$ 265.00	
Total Number of Wastes: 2	$ 20.00	
TOTAL LICENSE FEE		$ 285 X 5/12 = 119.0
Initial Application Review Fee	$ ---	
TOTAL FEE		$ 119.00
Initial Payment	$ ---	
AMOUNT OWED		$ 119.00

Make Checks Payable to: Hennepin County Finance Director

License and Application Fee:

The appropriate fee for the Hazardous Waste License is determined using the table below.

HAZARDOUS WASTE GENERATOR FEE SCHEDULE

License Fee			
Total Volume of Hazardous Wastes (Gallons/Year)			
First 500 (or portion thereof)	Next 500 (or portion thereof)	Each Addl. 1000 (or portion thereof)	Initial Application Review Fee
$50	$25	$10	$30

For each additional waste add $20 per license fee and $20 per application fee.

Example: Total Volume - 2,900 gallons; total number of wastes - 4. First 1,000 gallons - $75, next 2,000 gallons - $20; 3 additional wastes - $60. Total license fee - $155. First waste initial application - $30; 3 additional wastes - $60. Total initial application review fee - $90. Total Fee - $245.

Facility: Interplastic Corporation
2015 NE Broadway St.
Minneapolis, MN 55413

June, 1980 to November 1, 1980

5 month license
7 month credit

Total Volume: 20,000 gals.	$ 265.00	
Total Number of Wastes: 2	$ 20.00	
TOTAL LICENSE FEE		$ 285.00
Initial Application Review Fee	$ 50.00	
TOTAL FEE		$ 335.00
Initial Payment	$ 335.00	
AMOUNT OWED		$ -0-

Make Checks Payable to: Hennepin County Finance Director

Generator License Check List 2821

Generator Name Interplastic Corp.

Address 2015. N.E. Broadway St.
Mpls, Mn 55413.

Responsible Person Marvin Weiss

Phone Number 331-6850.

	Date
Disclosure Received	6-17-8[illegible]
Disclosure Reviewed	9-19-8[illegible]
Contacts	
Site Visit	
License Issued	

License Fee $ [illegible]

Waste Inventory Number Type, Constituent	Production/Storage Volume Site	Transporter Site Reg. No.	Disposer Site Reg. No.
waste acetone 1. polyester solids 17.3% 2. acetone 75% 3. styrene 7.65%	prod: 16,000 gal/yr. store: 55 gal. steel barrel in open yard.	Worum Chemical TR0014	Hydrite Chem Co. 2781 Wt.
	disp: 4 x's/yr - 4,000 gal		
waste resin 1. polyester solids 69.3% 2. styrene: 30.7%	prod: 4,000 gal/yr. store: 55 gal steel barrel in open yard.	Rogers Petrochem TR1979	Wescon EPA site Grandview, ID
	disp: 2x's/yr - 2,000 gal.		
waste H20 discharged to sewer.	non-haz of lab report attached		
Pb			
As asbestos B			

INTERPLASTIC CORPORATION
PHONE 331-6850

MARVIN R. WEISS

PLANT MANAGER
COMMERCIAL RESINS DIVISION

2015 N. E. BROADWAY
MINNEAPOLIS, MINN. 55413

PHILLIPS 66

INTERPLASTIC CORPORATION
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

ROMAN KRAMER
ENGINEER
COMMERCIAL RESINS DIVISION

2015 N.E. Broadway
Minneapolis, MN 55413

(612) 331-6850

Generator _____

Waste Inventory Number Type, Constituent	Production/Storage Volume Site	Transporter Site Reg. No.	Disposer Site Reg. No.

Handling Procedure | Disposal | Storage Procedures | Storage Volume | Shipment Volume | Production Volume | ste

2,172 mg/gal/yr.

Many polyester resins - made to order.

holding tanks - PCA.
12 tanks over 5,000 gal (raw materials)

Solvents
only acetone - no other.

pH - of cooling H2O - 6.7 - 7.7

Asbestos - used as a filler in various resins.

waste bags → landfill. (will write E.M)

no filter.

no photo lab.

Memo of Site Visit to Interplastic Corp.
10/16/80 - 9AM. Contact Marvin Weiss.

Met c̄ Mr Weiss + c̄ Roman Kromer, + discussed the following:

1. they manufacture polyester resins. (special, made to order)
2. Have 12 -> 3,000 gal. to store raw materials.
3. Solvents used - only acetone - no other
4. pH of cooling H_2O checked out to be between 6.7 + 7.7.
5. Asbestos is used as a filler in various resins. Waste bags go to landfill. They will write E. Monteleone for permission to dispose in this way.
6. They use no filters + have no photo lab.

A tour of premises followed.
Returned. 10:45 AM

HOPKINS, MINNESOTA 55343

HAZARDOUS WASTE GENERATOR
LICENSE APPLICATION INFORMATION

A. Generator Information

1. Company Name: INTERPLASTIC CORPORATION Phone No. 331-6850

Address: 2015 N.E. BROADWAY STREET

MINNEAPOLIS, MN 55413

2. Plant Name/Division: COMMERCIAL RESINS DIVISION Phone No. 331-6850

Address: 2015 N.E. BROADWAY STREET

MINNEAPOLIS, MN 55413

3. Responsible Person: MARVIN WEISS Phone No. 331-6850

Address: 2015 N.E. BROADWAY STREET Business: 331-6850

MINNEAPOLIS, MN Residence or Emergency: 571-5613

B. Waste Inventory

Process, Activity, Service Department	SIC(s)	Waste Type	Physical State	Check One	
				Non-Haz.	Hazard-ous
1.	2821	WASTE ACETONE	LIQUID		X
2.		WASTE RESIN	VISCIOUS LIQUID & SOLIDS		X
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

*(If additional space is needed for this waste inventory, a supplemental waste inventory form may be obtained from the County Solid Waste Officer.)

C. Negative Declaration

If any of the wastes identified in Item B are hazardous, continue with Item D, below.

If none are hazardous this constitutes a negative declaration. Check the box below and skip to Item F.

☐ No hazardous wastes

D. Of the wastes identified in Item B on the reverse side as hazardous, which ones are:

1. Maintained separate (unmixed with any other waste or material) until offered for transport, disposal or other ultimate disposition (list by line number each separate waste type from Table B on the reverse side of this form):

a. WASTE ACETONE d. _____ g. _____ j. _____

b. WASTE RESIN e. _____ h. _____ k. _____

c. _____ f. _____ i. _____ l. _____

2. Mixed with another waste or material before leaving your control (list by line numbers each combination of waste type from Table B on reverse side of this form):

a. _____ d. _____ g. _____ j. _____

b. _____ e. _____ h. _____ k. _____

c. _____ f. _____ i. _____ l. _____

3. Complete and attach a separate Hazardous Waste Management Plan (Green form) for each and every waste identified in Items D.1. and 2. above.

E. License and Application Fees:

1. The appropriate license and application fee must be determined and submitted with the license application and mangagement plan. See fee schedule.

Total number of hazardous wastes being managed: 2 (Equals number of Management Plan(s) submitted).

2. The sum of hazardous waste quantitites listed on the Management Plan(s) (Green form) being managed per year: 20,000 gallons.

3. Fees submitted (amount): License $285.00 Initial Application $ 50.00

TOTAL $335.00

F. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. Included with this application is 24 attachments.

Warren Weiss — Signature of Applicant

Plant Manager — Title

6/12/80 — Date

HAZARDOUS WASTE DISCLOSURE FOR
PAST MANAGEMENT OF HAZARDOUS WASTE

A. Complete the Past Management of Hazardous Waste Form and include all present and past, suspected or known hazardous wastes.

B. Name of generator (from Items A.1. and A.2. of Disclosure Form):

Interplastic Corporation

C. Waste Inventory for Past Management*

Process, Source, Service Dept.	Waste Type	Physical State	Disposal Frequency (days, weeks, months)	Total Amt. Per Year (tons, gallons, yds.
1. WASTE ACETONE	ACETONE	LIQUID	EVERY 3 MONTHS	16000 GALLON/YR
2. WASTE RESIN	RESIN	VISCIOUS LIQUID SOLID	EVERY 6 MONTHS	4000 GALLON/YR
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				

*If additional space is needed, complete on a separate sheet of paper, number the attachment and attach to this form.

D. Transporters Used (name and address):

Name	Address	Waste # from Item C. above	Years Used for Transport
ROGERS PETRO-CHEM	RR1 GROVE CITY, MN 56243		3
WORUM CHEMICAL	2130 KASOTA AVE. ST. PAUL 55108		4

E. Disposal site, on-site facility, storage, treatment and/or recovery facility; MPCA permit number, if applicable; method or process of disposal:

Name	Permit # or State & Co.	Waste # from C.	Years Used for Disposal	Method/Process
WES-CON, INC.	EPA SITE		3	LAND FILL
WASTE MANGEMENT OF WISC.	1678		4	LAND FILL
HYDRITE CHEMICAL CO.	WISC.		4	RECOVERY

F. Past Management of Hazardous Waste disclosed above covers the period: from 1/ 1/76 to 6/9/80.

G. The above referenced generator (Item B. of this form) has been operating since:

6/12/80.
Date

Prepared by:

1. The hazardous waste management plan shall be for a period of twelve (12) months corresponding to the license year. See instructions.

2. Estimated amount of this waste to be produced during the management plan period (Item C.1. above): 16,000 (gallons)

3. Briefly describe how and where this waste will be stored prior to shipment and/or disposal or other ultimate disposition (use additional sheets if necessary):

55 GALLON STEEL BARREL, IN OPEN YARD

4. What is the anticipated frequency of shipment of this waste:
4 per (day, week, month, year) or (specify): _____

5. What is the anticipated quantity of each of the shipments of this waste:
4,000 (gallons, tons, yards) or other specify

6. Is this waste to be comingled with any other waste? ☐ Yes ☒ No

If commingling is planned, list the generator and waste with which this waste may be commingled.

Generator Name	Establishment No.	Waste	Waste Code

7. Transporter to be used (name and MPCA registration number):

Name	Registration Number
WORUM CHEMICAL	TR 0014

8. Disposer, treatment, storage, and/or recovery facility, and method or porcess to be used (name and MPCA or other state permit number):

Name	Permit Number	Method/Process
HYDRITE CHEM CO.	2781	RECLAIM

9. Special procedures and/or instructions. Attach a description of:

a. Equipment, labels, and procedures for safe handling of this waste; and
b. Emergency procedures in case of a spill; and
c. Additional information the generator deems important.

D. I certify that I am familiar with the information contained in this Management Plan and that, to the best of my knowledge and belief, such information is true, complete, and accurate. Included with this Management Plan are _____ attachments.

Marvin Weiss — Signature of Applicant
Plant Manager — Title
6/12/80 — Date

WASTE ACETONE NOTE #1

THIS ACETONE IS USED FOR CLEANING RESIN FROM TANK TRUCKS AND FOR GENERAL PLANT CLEAN UP OF TOOLS AND EQUIPMENT USED IN THE MANUFACTURING OF POLY-ESTER RESIN. THE STYRENE INCLUDED IN THE RESIN IS USED AS A THINNER (SOLVENT) CONTROL FOR THE VISCOSITY OF THE RESIN.

THEREFORE, THESE ARE THE ONLY TWO HAZARDOUS WASTE COMPONENTS OF CONCERN IN THIS WASTE STREAM.

HENNEPIN COUNTY DEPARTMENT OF ENVIRONMENT AND ENERGY
320 WASHINGTON AVENUE SOUTH
HOPK[redacted], MINNESOTA 55343

EVALUATION DATA SHEET

1. Laboratory Name: SHELL CHEMICAL CO. Phone No.: 713-473-9461

Address ONE SHELL PLAZA P.O. BOX 2463

HOUSTON, TEXAS 77001

A. Report of Laboratory Analysis for *(name of generator)*:

INTERPLASTIC CORPORATION

Sample I.D.: ACETONE, $C_3 H_6 O$

Date Sampled: SEE MATERIAL SAFETY DATA SHEET

Date Received:

B. Parameters Listed in 6MCAR §4.9002 B.1-2 of MPCA Hazardous Waste Rules:

Parameter	Result	Precision	Source of Data

C. Sampling Location:

Sampling Procedure:

Sample Preservation Techniques:

D. Evaluation of Hazardous Properties ACETONE

Property	Test	Result	Precision	Lab Analysis/Date
1. Toxic	oral LD_{50} dermal LD_{50} inhalation LC_{50} aquatic LC_{50}			
2. Corrosive	rabbit pH skin damage steel coupon			
3. Irritative	rabbit skin damage			
4. Flammable	flash point			
5. Explosive	---			
6. Oxidative	---			

E. Literature or Experience - if other than laboratory analyses are submitted, provide supporting data.

E. Evaluation Submitted By: S Hall

Title: _____

Date: _____

INTERPLASTIC CORPORATION
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

COMMERCIAL RESINS DIVISION

MINNEAPOLIS, MINNESOTA 55413
2015 N.E. BROADWAY

HAZARDOUS WASTE HANDLING PROCEDURE AND SAFETY REGULATIONS WASTE ACETONE

USE ORANGE DRUMS FOR WASTE ACETONE. WHEN DRUM IS FILLED INSTALL BUNGS AND TIGHTEN.

ATTACH HAZARDOUS WASTE LABELS AND FILL IN DATE THAT DRUM WAS FILLED. ALSO ATTACH FLAMMABLE LABELS.

USE STENCIL FOR HAZARDOUS WASTE ON SIDE AND TOP OF EACH DRUM. FILL IN DATE WHEN DRUM IS FILLED WITH A MARKING PENCIL.

DO NOT STACK DRUMS MORE THAN TWO HIGH.

EMERGENCY FIRST AID. EFFECTS OF OVEREXPOSURE FROM ACETONE (DIZZINESS, ANESTHESIA BY INHALATION "HANGOVER" AND RECOVERY). REMOVE VICTIM TO FRESH AIR. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. EYES: FLUSH EYES WITH A LARGE VOLUME OF FLOWING WATER (EYE FOUNDATION) FOR A MINIMUM OF 15 MINUTES. SKIN: WASH FROM THE SKIN WITH A LARGE VOLUME OF FLOWING WATER. REMOVE CONTAMINATED CLOTHING. INGESTION: HOSPITALIZE AT ONCE. DO NOT GIVE EMETICS.

IN CASE OF SPILL, NOTIFY FOREMAN ON DUTY AND PLANT MANAGER.

FIRE EXTINGUISHERS ARE LOCATED IN SCALE HOUSE AND OUTSIDE OF PUMP HOUSES. IN CASE OF FIRE, PULL FIRE ALARM SWITCH ON NORTH END OF TANK FARM WALL.

MINNESOTA POLLUTION CONTROL AGENCY, 24 HOUR SPILL NUMBER 296-7373.

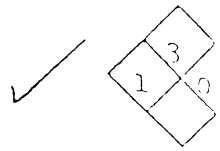
EYE WASH AND SHOWER AVALIBLE IN KETTLE ROOM.

FOR FIRST AID, SEE FOREMAN IMMEDIATELY.

COMPANY DOCTOR PHONE NUMBER 789-3531.

METROPOLITIAN MEDICAL CENTER INFORMATION 347-4444.

SHELL CHEMICAL COMPANY
SHELL DEVELOPMENT COMPANY
SHELL PIPE LINE CORPORATION



MATERIAL SAFETY DATA SHEET

Information on this form is furnished solely for the purpose of compliance with the Occupational Safety and Health Act of 1970 and shall not be used for any other purpose. Use or dissemination of all or any part of this information for any other purpose may result in a violation of law or constitute grounds for legal action.

SECTION I

MANUFACTURER'S NAME: Shell Chemical Company	EMERGENCY TELEPHONE NO.: 713-473-9461
ADDRESS (Number, Street, City, State, and ZIP Code): One Shell Plaza, P. O. Box 2463, Houston, Texas 77001	
CHEMICAL NAME AND SYNONYMS: Acetone/Dimethyl Ketone	TRADE NAME: ACETONE
CHEMICAL FAMILY: Ketones	FORMULA: C_3H_6O

SECTION II HAZARDOUS INGREDIENTS*

COMPOSITION	%	SPECIES	LD_{50} ORAL	LD_{50} DERMAL	LC_{50} CONCENTRATION	LC_{50} HOURS
PIGMENTS						
CATALYST						
VEHICLE						
SOLVENTS	100	Rat	10.7 gm/kg			
ADDITIVES		Rabbit		>20 ml/kg		
OTHERS		Rat			>16,000 PPM	4

SECTION III PHYSICAL DATA

BOILING POINT (°F)	134	SPECIFIC GRAVITY (H_2O=1)	0.79
VAPOR PRESSURE (mmHg) @ 68°F	180	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	2.0	EVAPORATION RATE (NBAC =1)	5.6
SOLUBILITY IN WATER	100%		
APPEARANCE AND ODOR	Colorless mobile liquid. Mild odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
0°F TCC		2.6	12.8

EXTINGUISHING MEDIA: Dry chemical, alcohol foam, CO_2

SPECIAL FIRE FIGHTING PROCEDURES: Handle as very flammable liquid

UNUSUAL FIRE AND EXPLOSION HAZARDS:

*Modified by Shell Oil Company

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	1000 PPM
EFFECTS OF OVEREXPOSURE	Dizziness, anesthesia by inhalation "Hangover" and recovery.
EMERGENCY AND FIRST AID PROCEDURES	Remove victim to fresh air. If breathing has stopped give artificial respiration.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID: Sparks and open flame.
	STABLE	X	
INCOMPATABILITY (Materials to avoid)	Strong oxidizing agents.		
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	Flush with copious quantities of water. Avoid sparks or open flame. Avoid flushing into confined areas. Wear respiratory protection.
WASTE DISPOSAL METHOD	Flush with water or controlled burning.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)	Emergencies - Organic canister or Air pack		
VENTILATION	LOCAL EXHAUST		SPECIAL
	MECHANICAL (General)	As required.	OTHER
PROTECTIVE GLOVES	Rubber	EYE PROTECTION	Goggles to prevent splashing in eyes.
OTHER PROTECTIVE EQUIPMENT			

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	Highly flammable. Prevent skin contact to avoid defatting action.
OTHER PRECAUTIONS	Use normal good personal hygiene.

NAME D. M. Sheets

TITLE Supervisor-Product Development-Resins

COMPANY Shell Chemical Company

SIGNATURE D M Sheets

DATE October 1971

HENNEPIN COUNTY DEPARTMENT OF ENVIRONMENT AND ENERGY
320 WASHINGTON AVENUE SOUTH
HOPKINS, MINNESOTA 55343

HAZARDOUS WASTE GENERATOR MANAGEMENT PLAN

A. Complete a separate Management Plan (Green form) for each hazardous waste identified in Items D.1. and D.2. of the Hazardous Waste Generator License Application Information (Blue form) and attach to the application.

B. Waste Identification and Evaluation:

1. Name of generator (from Items A.1. and A.2. of application form):
INTERPLASTIC CORPORATION COMMERICAL RESINS DIVISION

2. Name, type of waste (identified in Items D.1. or D.2. of the Blue application information form): WASTE RESIN

3. Major constituents of waste. List all known components (whether hazardous or not) and approximate concentration greater than 1%. Attach any explanatory reports or data:

Component	Concentration (%) (range)	Component	Concentration (%) (range)
POLYESTER SOLIDS	69.3%		
STYRENE	30.7%		

4. Hazardous components of waste. List all known or suspected components of the waste or leachate of the waste which are listed in 6MCAR §4.9002 B.1 and 6MCAR §4.9002 B.2 respectively.

Component	Concentration (ppm) (range)	Component	Concentration (ppm) (range)
STYRENE	307,000		

5. Hazardous properties. Check one or more of the following hazardous properties found for this waste. Attach explanatory reports of data describing why this hazardous waste does or does not exhibit these hazardous properties. Experience with the waste, literature sources, or test data may be used.

- ☐ Toxic
- ☒ Irritative
- ☐ Petroleum Waste
- ☐ Other
- ☐ Corrosive
- ☐ Explosive
- ☐ Used Crankcase Oil
- ☒ Flammable
- ☐ Oxidative
- ☐ List 1 and/or 2 (6MCAR §4.9002)

6. Waste code (to be completed by County Solid Waste Officer):

1. The hazardous waste management plan shall be for a period of twelve (12) months corresponding to the license year. See instructions.

2. Estimated amount of this waste to be produced during the management plan period (Item C.1. above): 4,000 (gallons)

3. Briefly describe how and where this waste will be stored prior to shipment and/or disposal or other ultimate disposition (use additional sheets if necessary):
IN 55 GALLON STEEL BARREL, IN OPEN YARD

4. What is the anticipated frequency of shipment of this waste:
TWO TIMES per (day, week, month, year) or (specify):

5. What is the anticipated quantity of each of the shipments of this waste:
2,000 (gallons, tons, yards) or other specify

6. Is this waste to be comingled with any other waste? ☐ Yes ☒ No

If commingling is planned, list the generator and waste with which this waste may be commingled.

Generator Name	Establishment No.	Waste	Waste Code

7. Transporter to be used (name and MPCA registration number):

Name	Registration Number
ROGERS PETROCHEM	TR 1979

8. Disposer, treatment, storage, and/or recovery facility, and method or porcess to be used (name and MPCA or other state permit number):

Name	Permit Number	Method/Process
WES CON	EPA SITE	DUMPED

9. Special procedures and/or instructions. Attach a description of:

a. Equipment, labels, and procedures for safe handling of this waste; and
b. Emergency procedures in case of a spill; and
c. Additional information the generator deems important.

D. I certify that I am familiar with the information contained in this Management Plan and that, to the best of my knowledge and belief, such information is true, complete, and accurate. Included with this Management Plan are _____ attachments.

Marvin Weis — Signature of Applicant
Plant Manager — Title
6/12/80 — Date

320 WASHINGTON AVENUE SOUTH
HOPK[redacted], MINNESOTA 55343

EVALUATION DATA SHEET

1. Laboratory Name: MONSANTO Phone No.:

Address 800 N. LINDBERGH BLVD.

ST. LOUIS, MO. 63166

A. Report of Laboratory Analysis for *(name of generator)*:

INTERPLASTIC CORPORATION

Sample I.D.: STYRENE

Date Sampled: SEE STYRENE MONOMER DATA SHEET

Date Received:

B. Parameters Listed in 6MCAR §4.9002 B.1-2 of MPCA Hazardous Waste Rules:

Parameter	Result	Precision	Source of Data

C. Sampling Location:

Sampling Procedure:

Sample Preservation Techniques:

D. Evaluation of Hazardous Properties

Property	Test	Result	Precision	Lab Analysis/Date
1. Toxic	oral LD_{50} dermal LD_{50} inhalation LC_{50} aquatic LC_{50}			
2. Corrosive	rabbit pH skin damage steel coupon			
3. Irritative	rabbit skin damage			
4. Flammable	flash point			
5. Explosive	---			
6. Oxidative	---			

E. Literature or Experience - if other than laboratory analyses are submitted, provide supporting data.

E. Evaluation Submitted By: Monsanto

Title: _____

Date: _____

Monsanto
DATA SHEET

PUB 146

Styrene Monomer

Effective Date: 12/1/77

Product Code: 4008-001-76-019

General Information

Monsanto styrene monomer is an aromatic hydrocarbon with an aliphatic side chain supplied as a colorless liquid inhibited with TBC. It is widely used to make polystyrene plastics, copolymer resins, SBR synthetic rubber and latices, ion exchange resins, polyesters, and styrene-modified oils and alkyds for surface coatings.

Specifications/Properties

Color, Pt-Co	10 maximum (ASTM D-1209)
Purity, Wt. %	99.6 minimum (ASTM D-1016)
Polymer, ppm	15 maximum (ASTM D-2121)
Aldehydes, Wt. %	0.02 maximum (ASTM D-2119)
Peroxides, Wt. %	0.01 maximum (ASTM D-2340)
Sulfur, Wt. %	0.003 maximum (MTM 602.094)
Chlorides, Wt. %	0.01 maximum (MTM 602.094)
TBC Inhibitor, ppm	10-15* (ASTM D-2120)

*Available containing 45-55 ppm inhibitor upon request.

NOTE: Product specifications are subject to change from time to time without notice. Please write us for our current product specifications.

Shipping Information

FOB	Addyston, Ohio—trucks Bayonne, N.J.—trucks Lemont, Ill.—trucks, tankcars Long Beach, Calif.—trucks New Haven, Conn.—trucks Texas City, Texas—tankers, barges, trucks, tankcars
Freight Classification	STYRENE MONOMER, INHIBITED FLAMMABLE LIQUID (STYRENE LIQUID)
Shipping Weight	7.587 lbs/gal. @ 15.6°C. (60°F.)
Containers	Tankcars: General service, carbon steel. Capacities: 25, 20, 10K gal. Tanktrucks: 5,000 gal. typical; 6,500-gal. West, for minimum freight; 6,000-gal. East, for minimum freight. Tankers, Barges: 100 mt/h loading capability on 1,000 mt minimum
Samples	One quart.

Handling Precautions

Care should be taken to avoid contact with the eyes. In case of eye contact, flush immediately with large volumes of water. If irritation persists, consult a physician.

Repeated or prolonged skin contact with styrene monomer should be avoided. In case of skin contact, wash affected area thoroughly with soap and water.

Exposure to styrene monomer vapor concentrations should be avoided by handling this material only in a well-ventilated area or with adequate respiratory protection. Should exposure to concentrated vapors occur, remove afflicted person to fresh air and summon a physician immediately.

Handle in a manner consistent with good manufacturing and hygienic practices applicable generally to industrial chemicals.

Labeling Requirements

Product label plus DOT flammable liquid label required by law.

MONSANTO CHEMICAL INTERMEDIATES CO.
800 N. Lindbergh Blvd., St. Louis, Mo. 63166

Akron, Ohio 44313 • 260 Springside Drive
Chicago, Ill. • 3158 Des Plaines Ave., Des Plaines, Ill. 60018
Houston, Texas 77056 • 1300 Post Oak Tower, 5051 Westheimer Road
New York, N. Y. 10036 • 1114 Avenue of the Americas
San Francisco Bay Area • 2710 Lafayette, Santa Clara, Calif. 95052
Wilmington, Del. 19810 • 3411 Silverside Road

a unit of Monsanto Company

Monsanto

51-1177-92 Litho in U.S.A.

INTERPLASTIC CORPORATION
A SUBSIDIARY OF PHILLIPS PETROLEUM COMPANY

COMMERCIAL RESINS DIVISION

MINNEAPOLIS, MINNESOTA 55413
2015 N.E. BROADWAY

HAZARDOUS WASTE HANDLING PROCEDURE AND SAFETY REGULATIONS WASTE RESIN

USE WHITE DRUMS FOR WASTE RESIN. WHEN DRUM IS FILLED, INSTALL BUNGS AND TIGHTEN.

ATTACH HAZARDOUS WASTE LABELS AND FILL IN DATE THAT DRUM WAS FILLED. ALSO ATTACH FLAMMABLE LABEL.

USE STENCIL FOR HAZARDOUS WASTE ON SIDE AND TOP OF EACH DRUM. FILL IN DATE WHEN DRUM IS FILLED WITH MARKING PENCIL.

DO NOT STACK DRUMS MORE THAN TWO HIGH.

IN CASE OF SPILL, NOTIFY FOREMAN ON DUTY AND PLANT MANAGER.

IF STYRENE IS SPILLED, IT MAY BE ABSORBED BY DRY EARTH OR EQUIVALENT THEN PUT IN METAL CONTAINERS.

EMERGENCY FIRST AID. MOVE PATIENT TO FRESH AIR AND REVIVE IF UNCONSCIOUS. CALL PHYSICIAN IMMEDIATELY. INGESTION: INDUCE VOMITING AT LEAST 3 TIMES WITH MILK AND RAW EGGS. INHALATION: LIE DOWN AND KEEP WARM: O_2 RELIVES COUGHING. EYE CONTACT: IRRIGATE 15 MINUTES WITH WATER. SKIN: WASH THOROUGHLY WITH SOAP AND WATER.

FIRE EXTINGUISHERS ARE LOCATED IN SCALE HOUSE AND OUTSIDE OF PUMP HOUSES. IN CASE OF FIRE, PULL FIRE ALARM SWITCH ON NORTH END OF TANK FARM WALL.

MINNESOTA POLLUTION CONTROL AGENCY, 24 HOUR SPILL NUMBER 296-7373.

EYE WASH AND SHOWER AVALIBLE IN KETTLE ROOM.

FOR FIRST AID, SEE FOREMAN IMMEDIATELY.

COMPANY DOCTOR PHONE NUMBER 789-3531.

METROPOLITIAN MEDICAL CENTER INFORMATION 347-4444.

HENNEPIN COUNTY DEPARTMENT OF ENVIRONMENT AND ENERGY
320 WASHINGTON AVENUE SOUTH
HOPKINS, MINNESOTA 55343

HAZARDOUS WASTE GENERATOR MANAGEMENT PLAN

A. Complete a separate Management Plan (Green form) for each hazardous waste identified in Items D.1. and D.2. of the Hazardous Waste Generator License Application Information (Blue form) and attach to the application.

B. Waste Identification and Evaluation:

1. Name of generator (from Items A.1. and A.2. of application form):
   INTERPLASTIC

2. Name, type of waste (identified in Items D.1. or D.2. of the Blue application information form):
   WASTE WATER DISCHARGED TO SEWER

3. Major constituents of waste. List all known components (whether hazardous or not) and approximate concentration greater than 1%. Attach any explanatory reports or data:

Component	Concentration (%) (range)	Component	Concentration (%) (range)
(NON HAZARDOUS)	SEE ATTACHED		
ANALYSES FROM SERCO LAB			

4. Hazardous components of waste. List all known or suspected components of the waste or leachate of the waste which are listed in 6MCAR §4.9002 B.1 and 6MCAR §4.9002 B.2 respectively.

Component	Concentration (ppm) (range)	Component	Concentration (ppm) (range)

5. Hazardous properties. Check one or more of the following hazardous properties found for this waste. Attach explanatory reports of data describing why this hazardous waste does or does not exhibit these hazardous properties. Experience with the waste, literature sources, or test data may be used.

☐ Toxic ☐ Irritative ☐ Petroleum Waste ☐ Other
☐ Corrosive ☐ Explosive ☐ Used Crankcase Oil
☐ Flammable ☐ Oxidative ☐ List 1 and/or 2 (6MCAR §4.9002)

6. Waste code (to be completed by County Solid Waste Officer):

C. Hazardous Waste Management:

1. The hazardous waste management plan shall be for a period of twelve (12) months corresponding to the license year. See instructions.

2. Estimated amount of this waste to be produced during the management plan period (Item C.1. above): _____ (gallons)

3. Briefly describe how and where this waste will be stored prior to shipment and/or disposal or other ultimate disposition (use additional sheets if necessary):

_____

_____

_____

4. What is the anticipated frequency of shipment of this waste:
_____ per (day, week, month, year) or (specify): _____

5. What is the anticipated quantity of each of the shipments of this waste:
_____ (gallons, tons, yards) or other specify

6. Is this waste to be comingled with any other waste? ☐ Yes ☐ No

If commingling is planned, list the generator and waste with which this waste may be commingled.

Generator Name	Establishment No.	Waste	Waste Code

7. Transporter to be used (name and MPCA registration number):

Name	Registration Number

8. Disposer, treatment, storage, and/or recovery facility, and method or porcess to be used (name and MPCA or other state permit number):

Name	Permit Number	Method/Process

9. Special procedures and/or instructions. Attach a description of:

a. Equipment, labels, and procedures for safe handling of this waste; and
b. Emergency procedures in case of a spill; and
c. Additional information the generator deems important.

D. I certify that I am familiar with the information contained in this Management Plan and that, to the best of my knowledge and belief, such information is true, complete, and accurate. Included with this Management Plan are _____ attachments.

Marcus Weiss — Signature of Applicant

Plant Manager — Title

6/12/80 — Date

SERCO
ELY • ROSEVILLE, MN
PERU, ILLINOIS

SANITARY ENGINEERING LABORATORIES, INC.
2982 N. Cleveland Ave. Roseville, Mn. 55113 (612) 636-7173

GERALD ALLEN, P.E.
LAWRENCE BREIMHURST, P.E.

June 4, 1980

Interplastic Corporation
2015 N.E. Broadway
Minneapolis, MN 55411
Mr. Marv Weiss
Mr. Roman Kramer

CLIENT NO : 0167

Dear Sir,

Enclosed please find laboratory report number 914 for samples received May 11, 1980. This report, consisting of 2 pages, is considered incomplete unless accompanied by this cover letter.

The laboratory analyses herein reported have been performed by myself or under my direct supervision and in accordance with EPA approved methodologies.

Submitted by,

SERCO LABORATORIES

Daryle Thingvold E.F.

Daryle Thingvold, Ph.D.
Technical Director

SERVICE
ELY • ROSEVILLE, MN
PERU, ILLINOIS

SANITARY ENGINEERING LABORATORIES, INC.
2[redacted] N. Cleveland Ave. Roseville, Mn. 55113 (612) [redacted]-7173

REPORT OF LABORATORY ANALYSIS
(Methodologies EPA approved)

REPORT NO: 914
06/04/80

CLIENT: Interplastic Corporation
DATE COLLECTED:
DATE RECEIVED: 05/11/80
SAMPLE DESCRIPTION: HAZARDOUS WASTE

COLLECTED BY: CLIENT
PICKED-UP BY: CLIENT

	LAB NO: 2439 SAMPLE SITE: HAZARD-OUS WASTE
ANALYSIS:	
Total Dissolved Solids, mg/L	388
Total Solids, mg/L	404
Total Chromium, mg/L as Cr	<0.05
Nickel, mg/L as Ni	<0.05
Cadmium, mg/L as Cd	<0.01
Lead, mg/L as Pb	<0.1
Manganese, mg/L as Mn	9.3
Arsenic, mg/L as As	<0.5
Beryllium, mg/L as Be	<0.02
Potassium, mg/L as K	18
pH	6.5

Approved by: E.T. < means "less than"

TOXICITY INFORMATION ON: STYRENE MONOMER

TOXICITY

The rat acute oral LD_{50} of undiluted styrene monomer is 4.37 grams/kilogram. When undiluted styrene monomer was held in continuous 24-hour contact with rabbit skin, the dermal LD_{50} was estimated to be greater than 5.01 grams/kilogram. Thus, styrene monomer is considered to be slightly toxic by ingestion in single doses and by single dermal applications.

When 0.1 milliliter of undiluted styrene monomer was placed into the conjunctival sac of the rabbit eye, a slight degree of irritation resulted. The average score of the 24-, 48- and 72-hour readings was 10.3 on a scale of 110.0. All eyes had regained a normal appearance 120 hours after they were dosed.

A mild degree of irritation resulted when 0.5 milliliter styrene monomer was held in continuous 24-hour contact with intact and abraded rabbit skin. The Primary Irritation Index was 2.4 on a scale of 8.0.

A styrene monomer, at ambient temperature, is capable of producing vapor concentrations which could be lethal. Two of six rats exposed to an atmosphere containing 14.0 milligrams/liter styrene monomer vapor died within 6 hours from the beginning of the exposure. Two additional rats died 4 to 6 days after exposure.

HANDLING PRECAUTIONS

Care should be taken to avoid contact with the eyes. In case of eye contact, flush immediately with large volumes of water. If irritation persists, consult a physician.

Repeated or prolonged skin contact with styrene monomer should be avoided. In case of skin contact, wash affected area thoroughly with soap and water.

Exposure to styrene monomer vapor concentrations should be avoided by handling this material only in a well-ventilated area or with adequate respiratory protection. Should exposure to concentrated vapors occur, remove afflicted person to fresh air and summon a physician immediately.

Styrene monomer appears to possess no other acute toxicologic properties which would require special handling other than the good hygienic practices employed with any industrial chemical.

1/12/77
Y-76-322

Form Approved
Budget Bureau No. 44-R1387
Approval Expires April 30, 1971

Form No. [illegible]
May 1969

U.S. DEPARTMENT OF LABOR

WORKPLACE STANDARDS ADMINISTRATION

Bureau of Labor Standards

MATERIAL SAFETY DATA SHEET

SECTION I

MANUFACTUER'S NAME: Monsanto Company	EMERGENCY TELEPHONE NO.: Texas City, 713-945-4431
ADDRESS (Number, Street, City, State, and ZIP Code): 800 North Lindbergh Boulevard, St. Louis, Missouri 63166	
CHEMICAL NAME AND SYNONYMS: Styrene, Vinyl Benzene	TRADE NAME AND SYNONYMS: Styrene Monomer, SM
CHEMICAL FAMILY: Aromatic Hydrocarbon	FORMULA: $C_6H_5CHCH_2$

SECTION II HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)

SECTION III PHYSICAL DATA

BOILING POINT (°F.)	293	SPECIFIC GRAVITY (H_2O = 1) 77°F(25°C)	.902
VAPOR PRESSURE (mm Hg.) 68°F(20°C)	4.5	PERCENT VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR = 1)	3.6	EVAPORATION RATE (Ether = 1)	<1
SOLUBILITY IN WATER 68°F(20°C)	.029%		
APPEARANCE AND ODOR: Colorless liquid with aromatic odor. Becomes irritating above 400 ppm.			

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): Tag, closed cup 88°F (31°C); Tag, open cup 98°F(37°C).	FLAMMABLE LIMITS Vol. %	LEL: 1.1	UEL: 6.1

EXTINGUISHING MEDIA: Dry Chemical, Water Fog, Foam or CO_2

SPECIAL FIRE FIGHTING PROCEDURES: Equipment which handles or contains styrene monomer should be cooled by water stream if exposed to fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

3/13/72

SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE 100 ppm

EFFECTS OF OVEREXPOSURE Irritation to eyes and respiratory tract normally provides good warning above 400ppm and systemic injury unlikely unless concentration extremely high (1% can be fatal in 30-60 min.)

EMERGENCY AND FIRST AID PROCEDURES Move patient to fresh air and revive if unconscious. Call physician immediately. Ingestion: Induce vomiting at least three times with milk and raw eggs. Inhalation: Lie down and keep warm; O_2 relieves coughing. Eye Contact: Irrigate 15 min. with water. Skin: Wash thoroughly with soap and water.

SECTION VI REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATABILITY (Materials to avoid) Alkylation Catalysts (H_2SO_4, H_3PO_4, BF_3, $AlCl_3$), Halogens, Hydrogen Halides, NaOH, Glycols (Removes Inhibitor).

HAZARDOUS DECOMPOSITION PRODUCTS Acrid fumes on heating.

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR	X	Excessive heat will deplete inhibitor (runaway polymerization usually requires >150° F)
	WILL NOT OCCUR		

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED All spills and leaks should be immediately flushed to waste treatment facilities with large amounts of water. If water is not available, styrene monomer may be absorbed by dry earth or equivalent and hauled to a disposal area.

WASTE DISPOSAL METHOD All quantities of styrene monomer or waste contaminated by styrene should be safely burned in a manner consistent with federal, state and local health and pollution regulations. Water containing styrene should be air blown and the air burned if contamination is gross.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type) Bureau of Mines approved industrial canister gas masks up to 2%. Air or O_2 supplied full face masks above 2%.

VENTILATION			
	LOCAL EXHAUST	SPECIAL	
	MECHANICAL (General)	OTHER	Good natural ventilation normally sufficient.

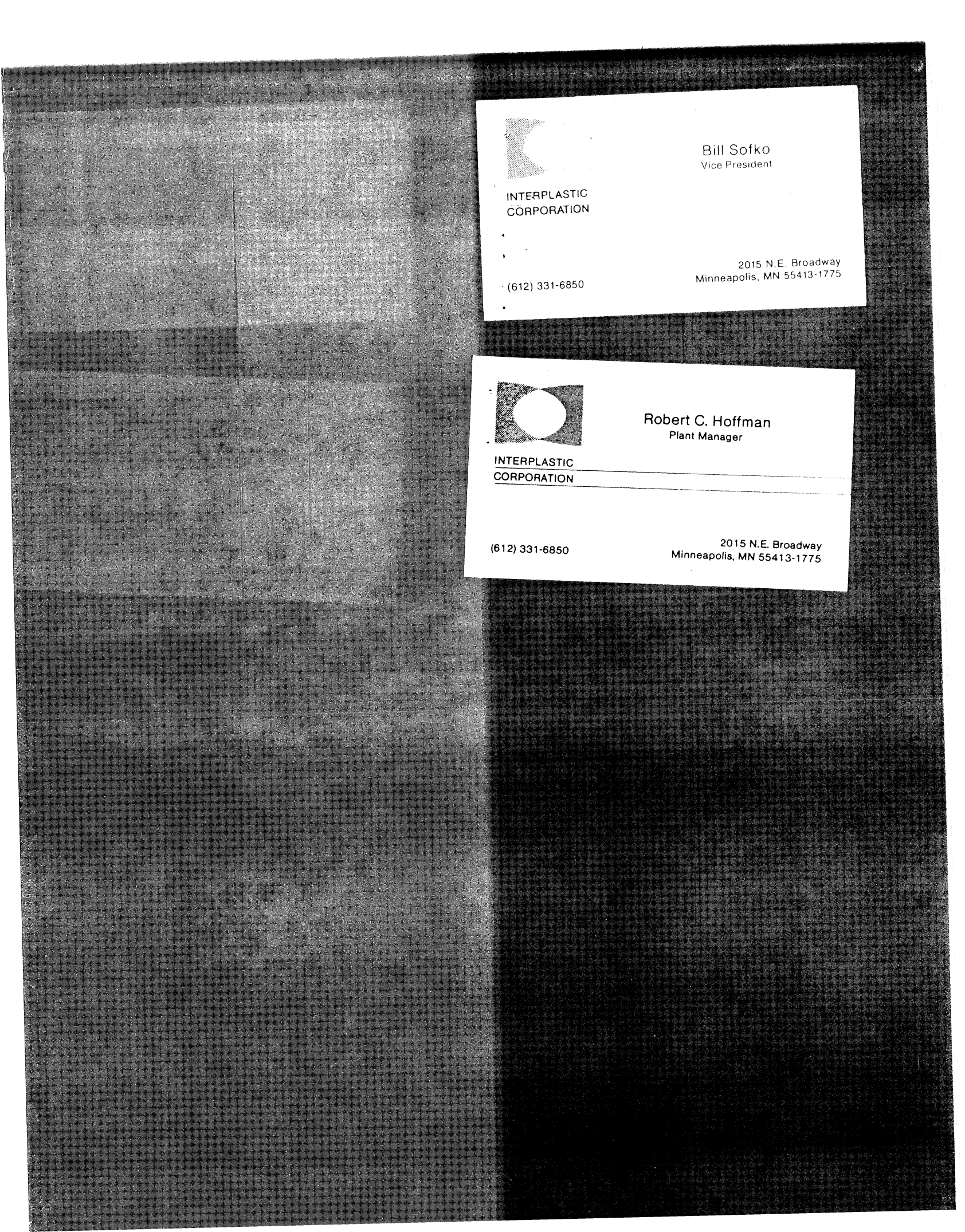
PROTECTIVE GLOVES Rubber or insoluble plastic. EYE PROTECTION Chemical safety goggles if eye contact possible.

OTHER PROTECTIVE EQUIPMENT Rubber boots and slicker suit if splashing likely.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING For storage temp. below 70° F, check inhibitor and polymer content weekly. If above 70° F, check daily or as experience indicates. Maintain TBC inhibitor above 10 ppm. Keep vents and flame arrestors polymer free. Do not use copper or copper alloys in styrene service. Rubber hose ~~xxxxxxxxxxxx~~ not recommended for styrene transfer.

Other precautions: Avoid skin and eye contact; avoid inhalation of vapors; avoid ingestion.



Bill Sofko
Vice President

INTERPLASTIC
CORPORATION

(612) 331-6850

2015 N.E. Broadway
Minneapolis, MN 55413-1775

Robert C. Hoffman
Plant Manager

INTERPLASTIC
CORPORATION

(612) 331-6850

2015 N.E. Broadway
Minneapolis, MN 55413-1775